Large eddy simulation of wind loads on solar panels
Tokyo Polytechnic University Wind Engineering Research Center name [Jingxue Wang]

Purpose
Wind loads is a major concern for roof-mounted solar panels and should be investigated for design.

Outline
Wind pressure distributions and flow field characteristics around solar panels are investigated by large eddy simulation using OpenFOAM.

Result
Both large-scale separated and reattached flow induced by roof edges and small-scale local vorticities near the solar panels determine the wind loads on solar panels.

Computing system: OCTOPUS
- node-hour: 920 points
- memory used: 60 GB
- vector per parallelize: 2~4 nodes